

## ABSTRACT OF THE DISCLOSURE

In a method of manufacturing a photo mask blank by forming an opaque film or a semi-transmission film on a transparent substrate, the film is subjected to irradiation of an ion generated by an ion source. A warp of the substrate by a film stress can be reduced (the film stress is relaxed), and density and denseness of the film can be enhanced. The film may be deposited on the transparent substrate by a sputtering method.

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